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(54) Title: PURIFIED SUBFRAGMENT CODIFYING FOR NEUROAMINIDASE, RECOMBINANT NEUROAMINIDASE  
AND ITS USE IN ZOOPROPHYLAXIS

(57) Abstract: Within the prophylaxis strategies for the control of type A avian influenza caused by viral infection with specific epi-  
demic strain H7N1, a vaccination process is envisaged comprising the preparation of a heterologous vaccine that is administered to an  
animal population, said vaccine featuring the same subtype of viral haemoagglutinin HA7 and a different subtype of neuroaminidase  
NA3, and thereafter detecting the viral infection positiveness by contacting an antigen with at least one genomic sequence that codes  
for a neuroaminidase NA1 protein with the biological fluids collected from the animals. By subsequently revealing an antigen-anti-  
body reaction by means of a test for detecting positiveness (iFA, ELISA among others), the vaccinated animals can be discriminated  
from the other ones. The recombinant antigen is represented by the recombinant glycoprotein neuroaminidase NA1, the genomic  
sequence of which is carried by a baculovirus and expressed in insect cell.

## INTERNATIONAL SEARCH REPORT

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PCT/IT 02/00231

**A. CLASSIFICATION OF SUBJECT MATTER**  
 IPC 7 A61K39/295 G01N33/569 A61K39/145

According to International Patent Classification (IPC) or to both national classification and IPC

**B. FIELDS SEARCHED**

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 A61K

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

BIOSIS, EPO-Internal, MEDLINE, EMBL

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	DATABASE EMBL 'Online! 15 December 1999 (1999-12-15) LEE M S ET AL: "Influenza A virus (A/chicken/Taiwan/7-5/99 (H6N1)) segment 6 neuraminidase gene, complete cds" retrieved from EMBL Database accession no. AF208598 XP002229091 the whole document	1
X	US 6 221 362 B1 (RIVIERE MICHEL ET AL) 24 April 2001 (2001-04-24) column 13, line 9 - line 28; figure 26 --- -/--	3,4

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	JOHANSSON B E: "Immunization with influenza A virus hemagglutinin and neuraminidase produced in recombinant baculovirus results in a balanced and broadened immune response superior to conventional vaccine" VACCINE, BUTTERWORTH SCIENTIFIC. GUILDFORD, GB, vol. 17, no. 15-16, 9 April 1999 (1999-04-09), pages 2073-2080, XP004165058 ISSN: 0264-410X	5-23,28
Y	the whole document  See especially pages 2074-2075, "Methods"	17, 24-27, 29-31
Y	CAPUA LDARIA ET AL: "Strategies for the control of avian influenza in Italy." THE VETERINARY RECORD. ENGLAND 16 FEB 2002, vol. 150, no. 7, 16 February 2002 (2002-02-16), page 223 XP009004791 ISSN: 0042-4900 the whole document See especially the second paragraph of the article	17, 24-27, 29-31
A	PRICE P M ET AL: "COMPLEMENTATION OF RECOMBINANT BACULOVIRUSES BY COINFECTION WITH WILD-TYPE VIRUS FACILITATES PRODUCTION IN INSECT LARVAE OF ANTIGENIC PROTEINS OF HEPATITIS B VIRUS AND INFLUENZA VIRUS" PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF USA, NATIONAL ACADEMY OF SCIENCE. WASHINGTON, US, vol. 86, no. 5, 1 March 1989 (1989-03-01), pages 1453-1456, XP000008241 ISSN: 0027-8424 the whole document	
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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
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